

ADJUSTABLE LADDER

BACKGROUND OF THE INVENTION

1. Field of the Invention.

The present invention relates to the general art of
5 ladders, and to the particular field of ladders with
supporting surface compensating means.

2. Discussion of the Related Art.

Many jobs require the use of a ladder. One of the most
common jobs requiring the use of a ladder is painting.
10 Accordingly, the art contains a multitude of ladders.

A problem that is common to many ladder uses is that
associated with uneven supporting surfaces. That is,
sometimes a ladder must be supported on sloping terrain
adjacent to a work site, such as a house, or the like.
15 Another situation occurs when a ladder must be supported on
stair steps. While the art contains examples of ladders that
can be adjusted to accommodate one type of uneven supporting
surface, the inventor is not aware of any ladders that can
accommodate a wide variety of different uneven supporting
20 surfaces.

Therefore, there is a need for a ladder that can be

adjusted for a plurality of different sloped surfaces.

Of course, if a ladder is used, the user requires that the ladder be stable and secure. Falls from ladders can be dangerous, if not fatal. The need for secure support is
5 especially critical if the ladder is to be supported on an uneven supporting surface since the ladder may not be level when in the use configuration.

Therefore, there is a need for a ladder that can be adjusted for a plurality of different sloped surfaces and
10 which is sturdy and stable in all configurations.

Of course, cost is a major factor in any product that will be sold to consumers. Therefore, a ladder that can safely accommodate a wide variety of different sloped supporting surfaces is useful, such a ladder should also be
15 cost effective to manufacture and sell if it is to be commercially viable.

Therefore, there is a need for a ladder that can be adjusted for a plurality of different sloped surfaces and which is sturdy and stable in all configurations and is cost
20 effective to manufacture and purchase.

Many ladders have work supporting platforms located near the top of the ladder. A worker can support tools as well as other objects on this platform. If a ladder is used by a painter, the painter often desires to support a paint

can on the platform. The inventor is aware of such ladders,
but is not aware of platforms that can accommodate a full
one gallon can of paint in a secure manner. Some platforms
can accommodate small cans of paint, but the inventor is not
5 aware of any platform that can securely accommodate a one
gallon can.

Therefore, there is a need for a ladder that can be
adjusted for a plurality of different sloped surfaces and
can securely hold work elements.

10 PRINCIPAL OBJECTS OF THE INVENTION

It is a main object of the present invention to provide
a ladder that can be adjusted for a plurality of different
sloped surfaces.

It is another object of the present invention to
15 provide a ladder that can be adjusted for a plurality of
different sloped surfaces and which is sturdy and stable in
all configurations.

It is another object of the present invention to
provide a ladder that can be adjusted for a plurality of
20 different sloped surfaces and which is sturdy and stable in
all configurations and is cost effective to manufacture and
purchase.

It is another object of the present invention to

provide a ladder that can be adjusted for a plurality of different sloped surfaces and can securely hold work elements.

SUMMARY OF THE INVENTION

5 These, and other, objects are achieved by an adjustable ladder that includes legs that are swivably attached to a top element and which have height-adjusting elements thereon. Non-slip surfaces are located on the ladder steps and a work holder has a cutout that is sized to accommodate
10 a one gallon paint can. Locking bars hold the legs in selected relative positions so the ladder can accommodate sloped surfaces as well as steps.

 Using the adjustable features of the ladder embodying the present invention will permit a ladder to be adjusted in
15 a plurality of ways so a wide variety of supporting surfaces can be accommodated while the ladder remains stable in all conditions. The ladder is safe to use and can accommodate work elements, including one gallon paint containers, in a stable and secure manner. The ladder can be manufactured in
20 a manner that is cost effective, so the cost to a consumer can be effective as well.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

Figure 1 is a perspective view of an adjustable ladder embodying the present invention.

5 Figure 2 is an elevational view taken along line 2-2 of Figure 1.

Figure 3 shows a ladder embodying the present invention on an inclined surface.

Figure 4 shows a ladder embodying the present invention on an inclined surface.

10 Figure 5 shows a ladder embodying the present invention on a stepped surface.

Figures 6 shows a ladder embodying the present invention on a stepped surface.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

15 Other objects, features and advantages of the invention will become apparent from a consideration of the following detailed description and the accompanying drawings.

Referring to the Figures, it can be understood that the present invention is embodied in an adjustable ladder 10
20 which can accommodate a wide range of different ladder supporting surfaces. The ladder can be formed of aluminum or other suitable materials.

Ladder 10 comprises a first leg 12 which is a first

front leg in a use condition such as shown in Figure 1.

First leg 12 includes a first end 14 that is a top end when the first leg 12 is in the use condition. The first end 14 has a pivot pin-accommodating hole 16 defined therethrough.

5 First leg 12 further includes a second end 18 that is a bottom end when the first leg 12 is in the use condition and a longitudinal axis 20 which extends between the first end 14 of the first leg 12 and the second end 18 of the first leg 12. First leg 12 further includes a first side surface
10 22 and a second side surface 24.

First leg 12 has a longitudinal length 12_L which is measured between the first end 14 of the first leg 12 and the second end 18 of the first leg 12.

First leg 12 further includes a first support surface-
15 engaging shoe 30 which is pivotally attached to the first leg 12 adjacent to the second end 18 of the first leg 12. First support surface-engaging shoe 30 includes a first mounting plate 32, that is triangular in shape and which includes an apex 34 and a base 36, and a second mounting
20 plate 38, that is triangular in shape and which includes an apex 40 and a base 42.

First support surface-engaging shoe 30 further includes a bottom element 43 that connects the base 36 of the first mounting plate 32 of the first support surface-engaging shoe

30 to the base 42 of the second mounting plate 38 of the first support surface-engaging shoe 30. Bottom element 43 of the first support surface-engaging shoe 30 includes a first surface 44 that is a top surface in the use condition, a
5 second surface 46 that is a bottom surface in the use condition, and a non-slip element 48 on the second surface 46 of the first support surface-engaging shoe 30 and which is adapted to engage a ladder-supporting surface LS in the use condition.

10 The first mounting plate 32 of the first support surface-engaging shoe 30 is located adjacent to the first side surface 22 of the first leg 12 and the second mounting plate 38 of the first support surface-engaging shoe 30 is located adjacent to the second side surface 24 of the first
15 leg 12.

A pivot pin 50 extends through the first leg 12 and is connected to the first mounting plate 32 of the first support surface-engaging shoe 30 adjacent to the apex 34 of the first mounting plate 32 of the first support surface-
20 engaging shoe 30 and to the second mounting plate 38 of the first support surface-engaging shoe 30 adjacent to the apex 40 of the second mounting plate 38 of the first support surface-engaging shoe 30. The pivot pin 50 of the first support surface-engaging shoe 30 pivotally connects the

first support surface-engaging shoe 30 to the first leg 12 adjacent to the second end 18 of the first leg 12.

A pivot fastener 52 extends through the first leg 12 at a location spaced apart from the pivot pin 50 of the first support surface-engaging shoe 30.

A brace storage pin 54 is fixedly mounted on the first leg 12 and extends outwardly from the first side surface 22 of the first leg 12. The brace storage pin 54 includes a body 55 which has a proximal end 56 fixedly mounted on the first leg 12, a distal end 58 which is spaced apart from the first side surface 22 of the first leg 12, and a head 60 on the distal end 58 of the brace storage pin 54. The brace storage pin 54 is spaced apart from the pivot pin 50 and from the pivot fastener 52.

Ladder 10 further includes a second leg 70 which is a second front leg in the use condition. Second leg 70 includes a first end 72 that is a top end when the second leg 70 is in the use condition. The first end 72 of the second leg 70 has a pivot pin-accommodating hole 74 (see Figure 3) defined therethrough.

Second leg 70 further includes a second end 76 that is a bottom end when the second leg 70 is in the use condition, and a longitudinal axis 78 which extends between the first end 72 of the second leg 70 and the second end 76 of the

second leg 70.

Second leg 70 further includes a first side surface 80 and a second side surface 82.

5 Second leg 70 has a longitudinal length 70_L which is measured between the first end 72 of the second leg 70 and the second end 76 of the second leg 70. The longitudinal length of the second leg 70 is equal to the longitudinal length of the first leg 12.

10 Second leg 70 further includes a second support surface-engaging shoe 84 which is pivotally attached to the second leg 70 adjacent to the second end 76 of the second leg 70. Second support surface-engaging shoe 84 includes a first mounting plate 86 that is triangular in shape and which includes an apex 88 and a base 90. Second support
15 surface-engaging shoe 84 further includes a second mounting plate 92 that is triangular in shape and includes an apex 94 and a base 96.

20 Second support surface-engaging shoe 84 further includes bottom element 98 that connects the base 90 of the first mounting plate 86 of the second support surface-engaging shoe 84 to the base 96 of the second mounting plate 92 of the second support surface-engaging shoe 84. Bottom element 98 includes a first surface 100 that is a top surface in the use condition, a second surface 102 that is a

bottom surface in the use condition, and a non-slip element 104 on the second surface 102 of the second support surface-engaging shoe 84 and which is adapted to engage a ladder-supporting surface in the use condition.

5 The first mounting plate 86 of the second support surface-engaging shoe 84 is located adjacent to the first side surface 80 of the second leg 70 and the second mounting plate 92 of the second support surface-engaging shoe 84 is located adjacent to the second side surface 82 of the second
10 leg 70.

 A pivot pin 110 extends through the second leg 70 and is connected to the first mounting plate 86 of the second support surface-engaging shoe 84 adjacent to the apex 88 of the first mounting plate 86 of the second support surface-
15 engaging shoe 84 and to the second mounting plate 92 of the second support surface-engaging shoe 84 adjacent to the apex 94 of the second mounting plate 92 of the second support surface-engaging shoe 84. Pivot pin 110 of the second support surface-engaging shoe 84 pivotally connects the
20 second support surface-engaging shoe 84 to the second leg 70 adjacent to the second end 76 of the second leg 70.

 A pivot fastener 114 extends through the second leg 70 at a location spaced apart from the pivot pin 110 of the second support surface-engaging shoe 84.

A brace storage pin 118 is fixedly mounted on the second leg 70 and extends outwardly from the first side surface 80 of the second leg 70. Brace storage pin 118 is identical to brace storage pin 54 and includes a body 120 having a proximal end 122 fixedly mounted on the second leg 70, a distal end 124 spaced apart from the first side surface 80 of the second leg 70, and a head 126 on the distal end 124 of the brace storage pin 118 on the second leg 70. The brace storage pin 118 of the second leg 70 is spaced apart from the pivot pin 110 of the second leg 70 and from the pivot fastener 114 of the second leg 70.

Ladder 10 further includes a third leg 130 which is a first rear leg in the use condition and which includes a first end 132 that is a top end when the third leg 130 is in the use condition. The first end 132 of the third leg 130 has a pivot pin-accommodating hole 134 defined therethrough.

Third leg 130 further includes a second end 136, that is a bottom end when the third leg 130 is in the use condition, and a longitudinal axis 138 that extends between the first end 132 of the third leg 130 and the second end 136 of the third leg 130.

Third leg 130 further includes a first side surface 140 and a second side surface 142.

The third leg 130 is hollow and has a bore 144 defined

therein. The bore 144 of the third leg 130 extends from the second end 136 of the third leg 130 toward the first end 132 of the third leg 130 in the direction of the longitudinal axis 138 of the third leg 130.

5 The third leg also has a longitudinal length 130_L which is measured between the first end 132 of the third leg 130 and the second end 136 of the third leg 130. The longitudinal length of the third leg 130 is less than the longitudinal length of the first leg 12.

10 A first lock pin-accommodating hole 150 is defined through the first side surface 140 of the third leg 130 adjacent to the second end 136 of the third leg 130.

 A second lock pin-accommodating hole 152 is defined through the second side surface 142 of the third leg 130
15 adjacent to the second end 136 of the third leg 130. The second lock pin-accommodating hole 152 of the third leg 130 is aligned with the first lock pin-accommodating hole 150 of the third leg 130.

 Third leg 130 further includes a brace arm-supporting
20 element 160 fixedly mounted on the first side surface 140 of the third leg 130. Brace arm-supporting element 160 includes a proximal end 162 fixedly mounted on the first side surface 140 of the third leg 130, a body 164, a distal end 166 spaced apart from the first side surface 140 of the third

leg 130, and a head 167 on the distal end 166 of the brace arm-supporting element 160 of the third leg 130.

A third leg extension element 170 is telescopingly accommodated in the bore 144 defined in the third leg 130.

5 The third leg extension element 170 includes a first end 172 which is a top end when the third leg 130 is in the use condition. The first end 172 of the third leg extension element 170 is located inside the bore 144 defined in the third leg 130. Third leg extension element 170 further
10 includes a second end 174 which is a bottom end when the third leg 130 is in the use condition. The second end 174 of the third leg extension element 170 is located outside the bore 144 defined in the third leg 130.

The third leg extension element 170 has a longitudinal
15 axis 176 which extends between the first end 172 of the third leg extension element 170 and the second end 174 of the third leg extension element 170.

The third leg extension element 170 further includes a plurality of lock pin-accommodating holes, such as hole 180,
20 defined through the third leg extension element 170 from a first side surface 181 to a second side surface 181' at locations on the third leg extension element 170 that are spaced apart from each other in the direction of the longitudinal axis 176 of the third leg extension element

170. Each of the lock pin-accommodating holes 180 defined in the third leg extension element 170 is adapted to be aligned with the first and second lock pin-accommodating holes 150, 152 defined through the first and second side surfaces 140, 142 of the third leg 130.

A third leg extension element lock pin 182 is adapted to extend through the first and second lock pin-accommodating holes 150, 152 defined through the first and second side surfaces 140, 142 of the third leg 130 and through a selected one of the plurality of lock pin-accommodating holes 180 defined through the third leg extension element 170 to lock the third leg extension element 170 to the third leg 130. A third support surface-engaging shoe 190 is pivotally attached to the third leg extension element 170 adjacent to the second end 174 of the third leg extension element 170. The third support surface-engaging shoe 190 of the third leg extension element 170 includes a first mounting plate 192 that is triangular in shape and which includes an apex 194 and a base 196. Third support surface-engaging shoe 190 further includes a second mounting plate 198 that is triangular in shape and which includes an apex 200 and a base 202.

The third support surface-engaging shoe 190 further includes a bottom element 206 that connects the base 196 of

the first mounting plate 192 of the third support surface-engaging shoe 190 to the base 202 of the second mounting plate 198 of the third support surface-engaging shoe 190.

5 The bottom element 206 of the third support surface-engaging shoe 190 includes a first surface 208 that is a top surface in the use condition, a second surface 210 that is a bottom surface in the use condition, and a non-slip element 212 on the second surface 210 of the third support surface-engaging shoe 190 and which is adapted to engage a ladder-supporting
10 surface in the use condition.

The first mounting plate 192 of the bottom element 206 of the third support surface-engaging shoe 190 is located adjacent to the first side surface 181 of the third leg extension element 170 and the second mounting plate 198 of
15 the bottom element 206 of the third support surface-engaging shoe 190 being located adjacent to the second side surface 181' of the third leg extension element 170.

A pivot pin 220 extends through the third leg extension element 170 and is connected to the first mounting plate 192
20 of the third support surface-engaging shoe 190 adjacent to the apex 194 of the first mounting plate 192 of the third support surface-engaging shoe 190 and to the second mounting plate 198 of the third support surface-engaging shoe 190 adjacent to the apex 200 of the second mounting plate 198 of

the third support surface-engaging shoe 190. The pivot pin 220 on the third leg 130 pivotally connects the third support surface-engaging shoe 190 to the third leg extension element 170 adjacent to the second end 174 of the third leg extension element 170.

Ladder 10 further includes a fourth leg 230 which is identical to the just-described third leg 130 and is a second rear leg in the use condition. Fourth leg 230 includes a first end 232 that is a top end when the fourth leg 230 is in the use condition. The first end 232 of the fourth leg 230 has a pivot pin-accommodating hole 234 defined therethrough. Fourth leg 230 further includes a second end 236 that is a bottom end when the fourth leg 230 is in the use condition. A longitudinal axis 238 extends between the first end 232 of the fourth leg 230 and the second end 236 of the fourth leg 230. The fourth leg 230 further includes a first side surface 240 and a second side surface 242.

The fourth leg 230 is hollow and has a bore 244 defined therein. The bore 244 of the fourth leg 230 extends from the second end 236 of the fourth leg 230 toward the first end 232 of the fourth leg 230 in the direction of the longitudinal axis 218 of the fourth leg 230.

Fourth leg 230 further includes a longitudinal length

240_L that is measured between the first end 232 of the fourth leg 230 and the second end 236 of the fourth leg 230. The longitudinal length of the fourth leg 230 is less than the longitudinal length of the second leg 70 and is equal to
5 the longitudinal length of the third leg 130.

A first lock pin-accommodating hole 245 is defined through the first side surface 240 of the fourth leg 230 adjacent to the second end 236 of the fourth leg 230, and a second lock pin-accommodating hole 246 is defined through
10 the second side surface 242 of the fourth leg 230 adjacent to the second end 236 of the fourth leg 230. The second lock pin-accommodating hole 246 of the fourth leg 230 is aligned with the first lock pin-accommodating hole 245 of the fourth leg 230.

15 A brace arm-supporting element 250 is fixedly mounted on the first side surface 240 of the fourth leg 230. The brace arm-supporting element 250 of the fourth leg 230 includes a proximal end 252 fixedly mounted on the first side surface 240 of the fourth leg 230, a body 254, a distal
20 end 256 spaced apart from the first side surface 240 of the fourth leg 250, and a head 258 on the distal end 256 of the brace arm-supporting element 250 of fourth leg 230.

A fourth leg extension element 260 is telescopingly accommodated in the bore 244 defined in the fourth leg 230.

The fourth leg extension element 260 is identical to the above-described third leg extension element 170 and includes a first end 262 which is a top end when the fourth leg 230 is in the use condition. The first end 262 of the fourth leg extension element 260 is located inside the bore 244 defined in the fourth leg 230. The fourth leg extension element 260 further includes a second end 264 which is a bottom end when the fourth leg 230 is in the use condition. The second end 264 of the fourth leg extension element 260 is located outside the bore 244 defined in the fourth leg 230. The fourth leg extension element 260 further includes a first side surface 265 and a second side surface 265'.

A longitudinal axis 266 extends between the first end 262 of the fourth leg extension element 260 and the second end 264 of the fourth leg extension element 260.

A plurality of lock pin-accommodating holes, such as hole 270, are defined through the fourth leg extension element 260 at locations on the fourth leg extension element 260 that are spaced apart from each other in the direction of the longitudinal axis 266 of the fourth leg extension element 260. Each of the lock pin-accommodating holes 270 defined in the fourth leg extension element 260 is adapted to be aligned with the first and second lock pin-accommodating holes 245, 246 defined through the first and

second side surfaces 240, 242 of the fourth leg 230.

A fourth leg extension element lock pin 272 is adapted to extend through the first and second lock pin-accommodating holes 245, 246 defined through the first and second side surfaces 240, 242 of the fourth leg 230 and through a selected one of the plurality of lock pin-accommodating holes 270 defined through the fourth leg extension element 260 to lock the fourth leg extension element 260 to the fourth leg 230.

A fourth support surface-engaging shoe 280 is identical to the above-described first, second and third support surface-engaging shoes 30, 84, 190, and is pivotally attached to the fourth leg extension element 260 adjacent to the second end 264 of the fourth leg extension element 260.

The fourth support surface-engaging shoe 280 of the fourth leg extension element 260 includes a first mounting plate 282 that is triangular in shape and which includes an apex 284 and a base 286. A second mounting plate 288 is triangular in shape and includes an apex 290 and a base 292.

A bottom element 300 connects the base 286 of the first mounting plate 282 of the fourth support surface-engaging shoe 280 to the base 292 of the second mounting plate 288 of the fourth support surface-engaging shoe 280. The bottom element 300 of the fourth support surface-engaging shoe 280

includes a first surface 302 that is a top surface in the use condition, a second surface 304 that is a bottom surface in the use condition, and a non-slip element 306 on the second surface 304 of the fourth support surface-engaging shoe 280 and which is adapted to engage a ladder-supporting surface in the use condition.

The first mounting plate 282 of the bottom element 300 of the fourth support surface-engaging shoe 280 being located adjacent to the first side surface 265 of the fourth leg extension element 260 and the second mounting plate 288 of the bottom element 300 of the fourth support surface-engaging shoe 280 being located adjacent to the second side surface 265' of the fourth leg extension element 260.

A pivot pin 310 extends through the fourth leg extension element 260 and is connected to the first mounting plate 282 of the fourth support surface-engaging shoe 280 adjacent to the apex 284 of the first mounting plate 282 of the fourth support surface-engaging shoe 280 and to the second mounting plate 288 of the fourth support surface-engaging shoe 280 adjacent to the apex 290 of the second mounting plate 288 of the fourth support surface-engaging shoe 280. The pivot pin 310 on the fourth leg 230 pivotally connects the fourth support surface-engaging shoe 280 to the fourth leg extension element 260 adjacent to the second end

264 of the fourth leg extension element 260.

A first brace element 320 includes a proximal end 322 pivotally attached to the first leg 12 by the pivot fastener 52 on the first leg 12, a distal end 324, and a longitudinal axis 326 which extends between the proximal end 322 of the first brace element 320 and the distal end 324 of the first brace element 320.

First brace element 320 further includes a first side edge 328, a second side edge 330, and a plurality of notches, such as notch 332, defined in the first brace element 320 adjacent to the first side edge 328. The notches 332 of the plurality of notches are spaced apart from each other in the direction of the longitudinal axis 336 of the first brace element 320.

The first brace element 320 further includes a lock notch 340 defined in the first brace element 320 adjacent to the distal end 324 of the first brace element 320 and adjacent to the second side edge 330 of the first brace element 320.

The first brace element 320 is pivotal between a use position shown in Figure 1 extending between the first and third legs 12, 130 and a stored position in which the longitudinal axis 326 of the first brace element 320 extends in the direction of the longitudinal axis 20 of the first

leg 12.

The lock notch 340 of the first brace element 320 is located and sized to engage the brace storage pin 54 on the first leg 12 when the first brace element 320 is in the
5 stored position.

Each notch 332 of the plurality of notches of the first brace element 320 is sized to engage the brace-supporting element 160 on the third leg 130.

A second brace element 350 is identical to the just-
10 described first brace element 320 and includes a proximal end 352 pivotally attached to the second leg 70 by the pivot fastener 114 on the second leg 70, a distal end 354, and a longitudinal axis 356 which extends between the proximal end 352 of the second brace element 350 and the distal end 354
15 of the second brace element 350.

Second brace element 350 further includes a first side edge 360, a second side edge 362, a plurality of notches, such as notch 364, defined in the second brace element 350 adjacent to the first side edge 360 of the second brace
20 element 350. The notches 364 of the plurality of notches of the second brace element 350 are spaced apart from each other in the direction of the longitudinal axis 356 of the second brace element 350.

Second brace element 350 further includes a lock notch

370 defined in the second brace element 350 adjacent to the distal end 354 of the second brace element 350 and adjacent to the second side edge 362 of the second brace element 350. The second brace element 350 is pivotal between a use
5 position extending between the second and fourth legs 70, 230 and a stored position in which the longitudinal axis 356 of the second brace element 350 extends in the direction of the longitudinal axis 78 of the second leg 70.

The lock notch 370 of the second brace element 350 is
10 located and sized to engage the brace storage pin 118 on the second leg 70 when the second brace element 350 is in the stored position. Each notch 364 of the plurality of notches of the second brace element 350 is sized to engage the brace-supporting element 250 on the fourth leg 230.

15 Ladder 10 further comprises a top unit 380 which includes a planar body 382 which has a peripheral edge 384. A plurality of tool-accommodating holes, such as hole 386, are defined through the planar body 382. A skirt 388 is located on the peripheral edge 384 of the planar body 382.
20 The skirt 388 includes a front section 390, a rear section 392, a first end section 394, and a second end section 396.

A first pivot pin-accommodating hole 400 is defined through the first end section 394 of the skirt 388 adjacent to the front section 390 of the skirt 388, a second pivot

pin-accommodating hole 402 is defined through the first end section 394 of the skirt 388 adjacent to the rear section 392 of the skirt 388, and a first pivot pin 404 extends through the first pivot pin-accommodating hole 400 of the skirt 388 of the top unit 380 and through the pivot pin-accommodating hole 16 defined in the first leg 12 adjacent to the first end 14 of the first leg 12. The first leg 12 is thus pivotally attached to the top unit 380 by the first pivot pin 404.

10 A second pivot pin 406 extends through the second pivot pin-accommodating hole 402 in the skirt 388 of the top unit 380 and through the pivot pin-accommodating hole 74 defined in the second leg 70 adjacent to the first end 72 of the second leg 70. The second leg 70 is thus pivotally attached to the top unit 380 by the second pivot pin 406.

15 A third pivot pin-accommodating hole is defined through the second end section 396 of the skirt 388 adjacent to the front section 390 and a fourth pivot pin-accommodating hole is defined through the second end section 396 of the skirt 388 adjacent to the rear section 392 of the skirt 388. A third pivot pin extends through the third pivot pin-accommodating hole of the skirt 388 of the top unit 380 and through the pivot pin-accommodating hole 134 defined in the third leg 130 adjacent to the first end 132 of the third leg

130. The third and fourth pivot pin-accommodating holes are identical to the just-described first and second pivot pin-accommodating holes 400, 402 and thus are not shown for the sake of clarity of the Figures. The third leg is pivotally
5 attached to the top unit 380 by the third pivot pin.

A fourth pivot pin is identical to the first and second pivot pins 404, 406 and is not shown for the sake of clarity of the Figures and extends through the fourth pivot pin-accommodating hole of the skirt 388 of the top unit 380 and
10 through the pivot pin-accommodating hole 234 defined in the fourth leg 230 adjacent to the first end 232 of the fourth leg 230. The fourth leg 230 is thus pivotally attached to the top unit 380 by the fourth pivot pin.

A work support unit 450 is pivotally attached to the
15 third leg 130 and to the fourth leg 230. The work support unit 450 includes a plurality of tool-accommodating holes, such as hole 452, defined therethrough and a support area 454 that is sized to securely support and encircle a one gallon paint can.

20 A first tether 460 has a proximal end 462 fixedly secured to the third leg 130 and a distal end 464 fixedly secured to the third leg extension element lock pin 182.

A second tether is identical to the just-described first tether and is not shown for the sake of clarity of the

Figures. The fourth tether has a proximal end fixedly secured to the fourth leg 230 and a distal end fixedly secured to the fourth leg extension element lock pin 272.

Ladder 10 further includes a plurality of ladder steps, such as ladder step 470. Each ladder step has a non-slip element, such as element 472, fixedly mounted thereon.

As can be understood from the Figures, especially Figures 3-6, ladder 10 can accommodate a wide range of differently sloped ladder-supporting surfaces, including, but not limited to, a declining ladder-supporting surface S_d shown in Figure 3, an inclining ladder-supporting surface S_i shown in Figure 4, a double stepped-supporting surface S_{dd} shown in Figure 5, or a single step-supporting surface S_{ds} shown in Figure 6. Other variations will occur to those skilled in the art based on the teaching of this disclosure, and such additional variations are intended to be covered by this disclosure as well. The size of the inclines can be accommodated by not only the telescoping portions of the ladder legs, but by the relative angular positions of the first and third and the second and fourth ladder legs as well.

It is understood that while certain forms of the present invention have been illustrated and described herein, it is not to be limited to the specific forms or

arrangements of parts described and shown.